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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,521	04/05/2004	Paul D. Perry	2003P04912US-01	4882

7590 02/17/2006

SIEMENS CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
170 WOOD AVENUE SOUTH  
ISELIN, NJ 08830

EXAMINER
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SCHNEIDER, CRAIG M

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/817,521	Applicant(s) PERRY ET AL.	
	Examiner Craig M. Schneider	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/9/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Oath/Declaration***

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:  
The specification recites U.S. Provisional application 60/547,602. This provisional application needs to be mentioned in the Oath.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "82". Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the thermistor, a

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capacitive switch, a float and contact switch, a magnet and reed switch, a resistive oil switch, an optical switch, and a resistance/conductance detector must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-8 and 14-15 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 and 14-15 of U.S. Patent No. 6,889,669. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in the application are anticipated by the claims in the patent.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 9-11 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Withrow et al. (2,575,574).

Regarding claims 9-11, Withrow et al. disclose a bi-directional valve (16)(col. 2, lines 48-55) apparatus comprising a first vapor flow path extending from a first port (19)(col. 3, lines 29-31), through a liquid (27)(col. 3, lines 59-65), to a second port (21)(col. 3, lines 44-46), and vapor flow along the first vapor flow path occurs when there is a first pressure differential between the first and second ports, and a second vapor flow path extending from the second port, through the liquid, to the first port, and vapor flow along the second vapor flow path occurs when there is a second pressure differential between the first and second ports (col. 4, lines 7-68).

Regarding claims 14 and 15, Withrow et al. disclose a valve that manages vapor pressure. The valve has a chamber as seen in Figure 2 in vapor communication between first and second ports. Liquid is disposed within the chamber and separates the chamber into a first (B) and second (A) portions. The first condition is displacing a first volume of the liquid from the first portion of the chamber to the second portion of the chamber in response to a first negative pressure differential between the first and second ports. The second condition is displacing a second volume of the liquid from the first portion of the chamber to the second portion of the chamber in response to a second negative pressure differential between the first and second ports, the second volume being greater than the first volume, and the second negative pressure differential being greater than the first negative pressure differential. The third condition is displacing a third volume of the liquid from the second portion of the chamber to the

first portion of the chamber in response to a positive pressure differential between the first and second ports.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Withrow et al. in view of Harris (6,199,574).

Withrow et al. disclose a valve apparatus comprising a housing (18)(col. 3, lines 26-29) defining an interior chamber, the housing including first and second ports communicating with the interior chamber and a liquid separating the interior chamber into first and second portions, the first portion of the interior chamber being in fluid communication with the first port, and the second portion of the interior chamber being in fluid communication with the second port. Withrow et al. further discloses that the housing comprises external and internal walls; the external wall (18) surrounds the interior chamber, and the internal wall (extension of 15 to 21 and 22) projects from the external wall into the interior chamber. Withrow et al. further disclose that the first end is in fluid communication with the first port and that the second end of the tube contiguously engages the liquid (the cup 22 is in contact with the liquid as seen in Figure 2). Withrow et al. does not disclose a sensor disposed in the interior chamber. Harris discloses a sensor (62) disposed in the interior chamber (col. 8, lines 38-51).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the sensor as disclosed by Harris onto the valve of Withrow et al. in both chambers A and B, in order to sense the presence of liquid (col. 5, line 66 onto col. 6, line 1).

Regarding claim 2, the combination of Withrow et al. and Harris disclose that the sensor detects a pressure differential between the first and second ports.

Regarding claim 3, the combination of Withrow et al. and Harris disclose that the sensor detects displacement of the liquid in response to the pressure differential.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wiggins et al. (1,874,727) disclose a liquid sealed vacuum and pressure relief valve. Seiler (2,929,335) discloses a liquid valve that contains a liquid seal. Tward (4,423,638) discloses differential pressure measurement device that utilizes liquid level. Robinson (4,362,130) discloses a liquid seal container for gasoline vapor. Harris (6,386,222) discloses a liquid level sensor. Mitchell (6,973,938) discloses a liquid column pressure and vacuum vent.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig M. Schneider whose telephone number is (571) 272-3607. The examiner can normally be reached on M-F 8:30 -5:00.




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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel can be reached on (571) 272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMS *CMS*  
February 10, 2006

  
Eric Keasel  
Primary Examiner  
Art Unit 3754